# United States Patent [19]

**Timm et al.**

[11] **Patent Number: 4,623,706**

[45] **Date of Patent: Nov. 18, 1986**


[54] **PROCESS FOR PREPARING UNIFORMLY SIZED POLYMER PARTICLES BY SUSPENSION POLYMERIZATION OF VIBRATORILY EXCITED MONOMERS IN A GASEOUS OR LIQUID STREAM**


[75] Inventors: **Edward E. Timm**, Coleman; **Douglas E. Leng**, Midland, both of Mich.

[73] Assignee: **The Dow Chemical Company**, Midland, Mich.



[21] Appl. No.: **643,578**

[22] Filed: **Aug. 23, 1984**

[51] **Int. Cl.**[4] ..... **C08F 2/18**

[52] **U.S. Cl.** ..... **526/88**; 526/918; 526/920

[58] **Field of Search** ..... 526/88, 918, 920



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*Primary Examiner*—Joseph L. Schofer
*Assistant Examiner*—Peter F. Kulkosky



[57] **ABSTRACT**

Spheroidal polymer beads having a uniform size are prepared by polymerizing uniformly sized monomer droplets formed by vibratory excitation of a laminar jet of monomeric material flowing in a gas phase. For example, a laminar jet of a monomer mixture comprising styrene, divinylbenzene and a polymerization initiator can be subjected to vibratory excitation and the resulting monomer droplets polymerized to yield copolymer beads having a narrow particle size range distribution. The copolymer beads can be employed in applications where beads having diameters of 5 μm to 100 μm are useful.


**14 Claims, 3 Drawing Figures**